

REMARKS

Claims 9-21 currently appear in this application. The Office Action of December 29, 2003, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicants respectfully request favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

Rejections under 35 U.S.C. 112

Claims 9-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This rejection is respectfully traversed. Claims 9 and 10 have been amended to recite that the galvanized alloy plating bath is such that Zn, Co, Mo or Ni hydrate oxides are formed on the galvanized alloy.

Art Rejections

Claims 9-12, 15-17, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Saitou et al.

This rejection is respectfully traversed. As is clear from the claims as amended, the surface of a galvanized alloy steel sheet of the present invention is blackened by means of anodic electrolysis, as described in the Examples.

The blackened layer of the present invention mainly contains a hydrate oxide selected from Zn, Co, Ni and Mo on a surface of the galvanized alloy. The surfaces of the galvanized alloy steel sheet of Saitou et al. is blackened by cathodic, rather than anodic, electrolysis. There is no description in the specification of the composition of Saitou et al. the bath composition for the blackened deposit of Saitou et al. looks like the bath composition of Zn alloy plating. The electrolysis conditions of Saitou et al. appear to be the electroplating conditions for Zn alloy plating. The blackened layer of Saitou et al. contains Zn, Fe, Co, or Ni, but it is respectfully submitted that the blackened layer of the present invention is different from that of Saitou et al.

In the present invention, the bath composition for surface blackening is the same as the bath composition for the galvanized alloy plating bath. In the process of the present invention, the zinc alloy electroplating and the surface-blackened treatment are effected using only one bath. In Saitou et al., the galvanized alloy plating bath cannot be used for a surface-blackened treatment. The bath composition of the present invention differs from that of Saitou et al. in that the bath composition of the present invention does not contain an oxidizing ion and an organic hydroxyl compound,

both of which are present in the surface-blackened bath of Saitou et al. Because of the differences in the bath compositions, it is respectfully submitted that the surface blackened treatments of the present invention are different from those of Saitou et al.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saitou et al. in view of Smith et al.

This rejection is respectfully traversed. Because the surface treatment of Saitou et al. is different from that of the present invention, it is respectfully submitted that the surface obtained in Saitou et al. is not the same as the blackened surface obtained in the present invention. Smith et al. add nothing to the Saitou et al. disclosure, because Smith et al. merely disclose polyurethane coating compositions having the pencil hardness as claimed herein. The blackened surface of Saitou et al. differs from that of the herein claimed invention, and the polyurethane coating of Smith et al. does not suggest the blackened coating of the present invention.

Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishizaka et al. in view of Saitou et al.


This rejection is respectfully traversed. The fact that Ishizaka et al. teach that film cartridges are made of steel is immaterial, and the Examiner concedes that Ishizaka et al. do not teach that the steel film cartridge has the claimed galvanized alloy plating, blackened surface, or a resin coating. Saitou et al. add nothing to the Ishizaka et al. disclosure, as the blackened coating of Saitou et al. differs from that of the present invention.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

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